

Tsutomu MORINAGA*, Hidenori NITTA** & Kyubei MINOURA*:
Some microfungi isolated from soil of Southeast Asia (1)

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(Plate I)

As interesting fungi in the distribution, the following four species¹⁾, *Acrophialophora levis*, *Cephaliophora irregularis*, *Gamsia dimera* and *Scolecobasidium variabile*, were isolated from soil of Southeast Asia.

1) *Acrophialophora levis* Samson et Tariq Mahmood in Acta Bot. Neerl. 19: 807 (1970) (Fig. 1)

Colonies cultured on malt extract agar at 28°C for 2 weeks attaining

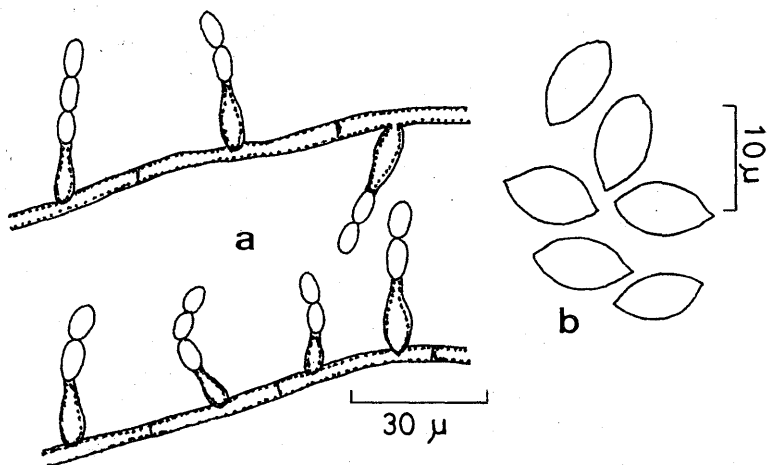


Fig. 1. *Acrophialophora levis* Samson et Tariq Mahmood. a: Phialides, b: Phialoconidia.

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1) All these four species are preserved as living cultures: HUT (Faculty of Engineering, Hiroshima University, Hiroshima, Japan) This work was presented at 21st Annual Meeting of the Mycological Society of Japan, Okayama Univ., Okayama (1977).

8.3 cm in diameter, floccose, white to pale buff. Reverse black. Vegetative mycelium hyaline, smooth, $2-4\ \mu\text{m}$ wide.

Phialides solitary, formed directly from vegetative mycelium, swollen at base, flask-shaped, tapering at tips, hyaline to pale green, smooth, $4-18\times 2-3\ \mu\text{m}$. Phialoconidia catenulate, oval, ellipsoidal or lemon-shaped, hyaline, smooth, $4-9\times 2.5-4\ \mu\text{m}$.

Hab. from soil of Singapore: HUT 5129

This isolate coincides with the original description, except the diameter of colonies cultured for 2 weeks. This is the first record from Southeast Asia.

2) *Cephalophora irregularis* Thaxter in Bot. Gaz. 35: 158 (1903) (Fig. 2; Plate I-1, 2)

Colonies cultured on malt extract agar at 28°C for 2 days attaining 5-6.5 cm in diameter, floccose, rosy buff (Rayner, 4YR/7.0/5.0).

Conidiophores hyaline to pale salmon, smooth; mostly short $30-40\ \mu\text{m}$ but up to $110\ \mu\text{m}$. Conidiogenous cells $15-32\ \mu\text{m}$ wide. Botryoblastoconidia very variable in shape, pyriform or turbinate, hyaline to pale reddish brown, smooth, 1- or 2-septate, $18-40\times 12-30\ \mu\text{m}$. Protuberant hilum $1.5-4\ \mu\text{m}$ wide.

Hab. from soil of Bangkok: HUT 5111

This isolate is distinguished from *C. tropica* by having one or two septa into conidia (Crook, et al., 1955). This species has been known only from Japan in Southeast Asia (Tubaki, 1956).

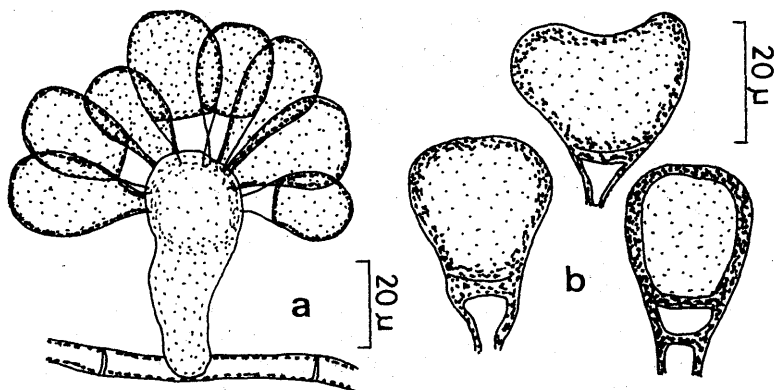


Fig. 2. *Cephalophora irregularis*. Thaxter. a: Conidiogenous cell, b: Botryoblastoconidia.

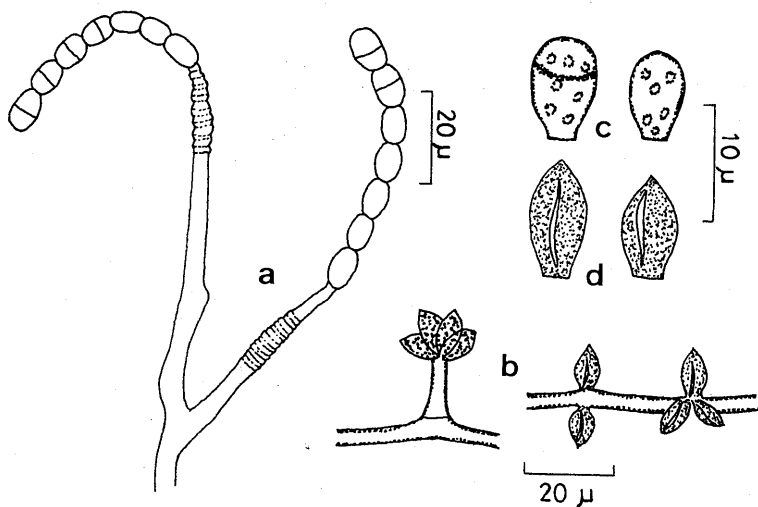


Fig. 3. *Gamsia dimera* (Gams) Morelet. a: Annellophores, b: Aleuriophore, c: Anelloconidia, d: Aleurioconidia.

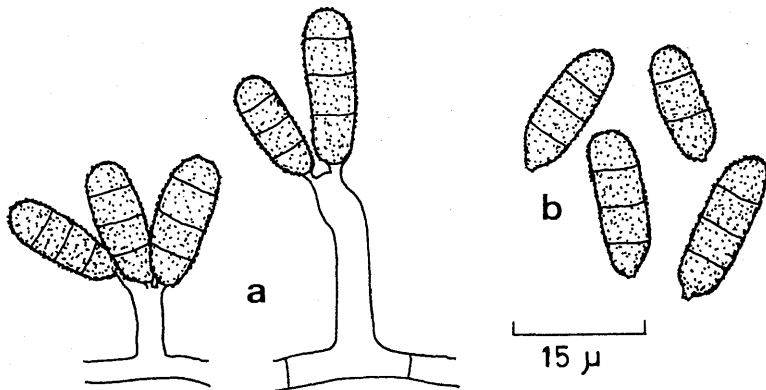


Fig. 4. *Scolecobasidium variabile* Barron et Busch. a: Conidiophores, b: Symptoduloconidia.

3) ***Gamsia dimera*** (Gams) Morelet in Ann. Soc. Sci. nat. Archeol. Toulouse 21: 105 (1969) (Fig. 3; Plate I-3, 4)

Colonies cultured on malt extract agar at 28°C for 2 weeks attaining 2.5 cm in diameter, velvety, greenish grey (Rayner, 8GY/6.0/2.0). Reverse olivaceous black (Rayner, 3BG/3.0/2.0).

Vegetative mycelium hyaline, smooth, 2-5 μm wide. Conidia of two kinds; (a) aleurioconidia produced directly from vegetative mycelium, solitary or clustered, obpyriform, brown, smooth, truncate at base, often with a longitudinal germ slit, 5-10 \times 2-3 μm ; (b) annelloconidia catenulate, ellipsoidal, hyaline, smooth, often with one septum, 7.5-12.5 \times 4-5 μm .

Hab. from soil of Hongkong: HUT 5123

Gamsia was erected by Morelet based on a single species *G. dimera*. This species was found only from Belgium for once (Gams, 1968).

4) ***Scolecobasidium variable*** Barron et Bush in Can. J. Bot. 40, 83 (1962) (Fig. 4; Plate I-5, 6)

Colonies cultured on potato-dextrose agar, floccose, grey olivaceous (Rayner, 6Y/4.0/1.5).

Conidiophores hyaline, becoming pale olive at mature stage, 4-25 \times 1.5-2.5 μm . Symptoduloconidia ellipsoidal to cylindrical, olivaceous, verruculose, 1- to 3-septate (most frequently 3), 9-18 \times 2.5-4.5 μm .

Hab. from soil of Hongkong: HUT 5120

This isolate coincides with the original description. It has been known only from India in Southeast Asia.

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References

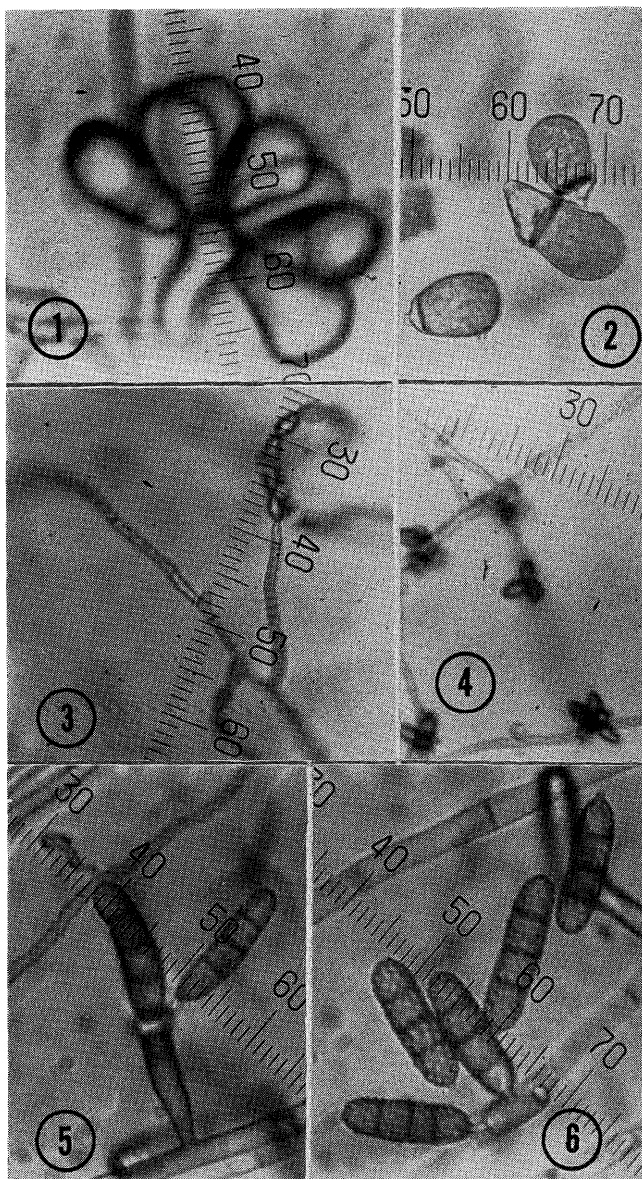
1. Crook, F.M. and W.R. Hindson. 1955. An Australian record of *Cephalophora tropica*. Trans. Br. mycol. Soc. 38: 218-220.
2. Gams, W. 1968. Two new species of Wardomyces. Trans. Br. mycol. Soc. 51: 798-802.
3. Tubaki, K. 1956. *Cephalophora irregularis* newly found in Japan. J. Jap. Bot. 31: 161-164.

Explanation of Plate I

- 1, 2: *Cephalophora irregularis* (one scale: 2.5 μm); 3, 4: *Gamsia dimera* (one scale: 2.5 μm); 5, 6: *Scolecobasidium variable* (one scale: 1 μm)

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東南アジアにおける菌類分布を知る目的の一端として 1976 年 3 月から 4 月にかけて ホンコン、バンコク、シンガポールにおいて土壌 152 試料を採集し、多数の糸状菌を分離同定した。そのうち比較的分離頻度の少ない菌類を記載した。



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